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WHAT IS CLAIMED IS:

- 1. A dietary supplement comprising a grape skin extract and a Muscat variety grape seed extract.
- 5 2. The dietary supplement of claim 1, wherein the ratio of said grape skin extract to said Muscat variety grape seed extract is about 3 to 1.
 - 3. The dietary supplement of claim 1, wherein the ratio of said grape skin extract to said Muscat variety grape seed extract is about 4 to 1.
 - 4. The dietary supplement of claim 1, wherein the ratio of said grape skin extract to said Muscat variety grape seed extract is about 5 to 1.
 - 5. The dietary supplement of claim 1, wherein said grape skin extract comprises at least about 25 percent polyphenolics.
 - 6. The dietary supplement of claim 1, wherein said grape skin extract is a Zinfandel grape skin extract.
 - 7. The dietary supplement of claim 1, wherein said Muscat variety grape seed extract comprises at least about 70 percent polyphenolics.
 - 8. The dietary supplement of claim 1, wherein said Muscat variety grape seed extract comprises at least about 3.5 percent monomeric flavanols.
 - 9. The dietary supplement of claim 1, wherein said Muscat variety grape seed extract comprises at least about 7.5 percent monomeric flavanols.
- 10. The dietary supplement of claim 1, wherein said Muscat variety grape seed extract comprises at least about 10 percent monomeric flavanols.

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- 11. The dietary supplement of claim 1, wherein said Muscat variety grape seed extract comprises at least about 60 percent oligomeric flavanols.
- 12. The dietary supplement of claim 1, wherein said Muscat variety grape seed extract comprises less than about 35 percent polymeric flavanols.
 - 13. The dietary supplement of claim 1, wherein said Muscat variety grape seed extract comprises less than about 30 percent polymeric flavanols.
 - 14. The dietary supplement of claim 1, wherein administration of said dietary supplement to a dog inhibits platelet aggregation when measured with the Foltz model test, wherein said administration is 25 mg of said dietary supplement per kg of dog weight, and wherein said inhibition is measured at least 18 hours after said administration.
 - 15. The dietary supplement of claim 14, wherein said inhibition is measured at least 24 hours after said administration.
 - 16. The dietary supplement of claim 1, wherein said dietary supplement comprises ginkgo biloba.
 - 17. The dietary supplement of claim 1, wherein said dietary supplement comprises bilberry.
- 18. The dietary supplement of claim 1, wherein said dietary supplement comprises quercetin.
 - 19. The dietary supplement of claim 1, wherein said dietary supplement comprises an enzyme.

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- 20. The dietary supplement of claim 19, wherein said enzyme is selected from the group consisting of bromolein, papain, a fungal protease, an acid stable protease, a neutral stable protease, an alkaline stable protease, and mixtures thereof.
- 21. The dietary supplement of claim 1, wherein said dietary supplement inhibits platelet aggregation when measured with an *in vitro* platelet aggregometry test using 300 mg of said dietary supplement per liter of whole blood.
- The dietary supplement of claim 1, wherein said dietary supplement inhibits
 LDL cholesterol oxidation when measured with a LDL oxidation test at a dosage of 10 mg of said dietary supplement per liter of cholesterol.
 - 23. The dietary supplement of claim 1, wherein said dietary supplement is a pill, a powder, or a liquid.
 - 24. The dietary supplement of claim 1, wherein the Muscat variety of said Muscat variety grape seed extract is unfermented.
 - 25. A dietary supplement comprising a grape skin extract and a grape seed extract, wherein the ratio of said grape skin extract to said grape seed extract is between 3 to 1 and 10 to 1.
 - 26. The dietary supplement of claim 25, wherein said ratio is 3 to 1.
 - 27. The dietary supplement of claim 25, wherein said ratio is 4 to 1.
 - 28. The dietary supplement of claim 25, wherein said ratio is 5 to 1.
- 29. The dietary supplement of claim 25, wherein said grape seed extract comprises at least about 70 percent polyphenolics.

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- 30. The dietary supplement of claim 25, wherein said grape seed extract is a Muscat variety grape seed extract.
- 31. A dietary supplement comprising a grape skin extract and a grape seed extract, wherein said grape seed extract comprises at least about 70 percent polyphenolics.
 - 32. A dietary supplement comprising a grape skin extract and a grape seed extract, wherein said grape seed extract comprises at least about 3.5 percent monomeric flavanols, at least about 60 percent oligomeric flavanols, and less than about 35 percent polymeric flavanols.
 - 33. A method of inhibiting platelet aggregation or LDL cholesterol oxidation in a mammal, said method comprising administering a dietary supplement to said mammal, wherein said dietary supplement is selected from the group consisting of:
 - (a) a dietary supplement comprising a grape skin extract and a Muscat variety grape seed extract,
 - (b) a dietary supplement comprising a grape skin extract and a grape seed extract, wherein the ratio of said grape skin extract to said grape seed extract is between 3 to 1 and 10 to 1,
 - (c) a dietary supplement comprising a grape skin extract and a grape seed extract, wherein said grape seed extract comprises at least about 70 percent polyphenolics, and
 - (d) a dietary supplement comprising a grape skin extract and a grape seed extract, wherein said grape seed extract comprises at least about 3.5 percent monomeric flavanols, at least about 60 percent oligomeric flavanols, and less than about 35 percent polymeric flavanols.
 - 34. The method of claim 33, wherein said dietary supplement is administered orally.

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